## APPENDIX 1 HISTORICAL FLOWS

The U.S. Geological Survey gage (# 11302500) records at Oakdale between 1895 and 1899 (Figures 1-4) provide the best available representation of flows prior to the construction of reservoirs in the watershed (Kondolf 2001). During 1896, 1897, and 1899, the hydrograph can be characterized by (1) flashy winter storms that increased flows up to 14,000 cfs in January and February; (2) snowmelt that provided consistently high flows between 2,000 and 13,000 cfs from March to June, (3) small runoff events between late-September and December, and (4) minimum base flows of 50 to 180 cfs from mid-July through October. During 1898, which was the driest year between 1895 and 1899, snowmelt flows ranged between 500 to 4,000 cfs flows and the minimum base flow was 27 cfs.

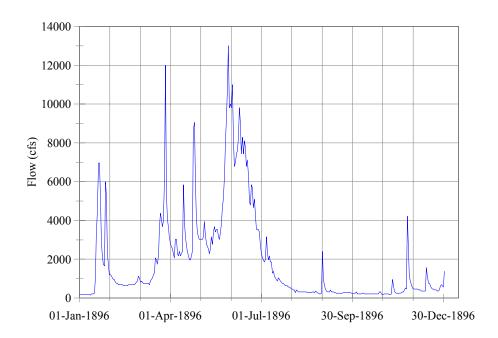


Figure 1. Estimated streamflow at U.S. Geological Survey gage 1302500 in the lower Stanislaus River near Oakdale in 1896.

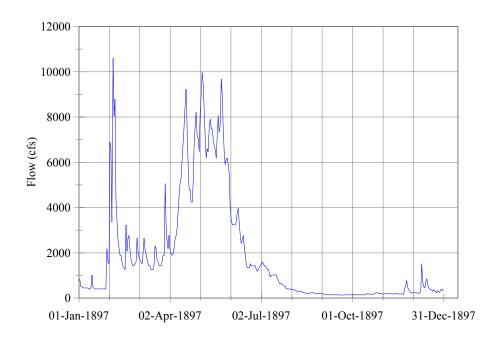


Figure 2. Estimated streamflow at U.S. Geological Survey gage 1302500 in the lower Stanislaus River near Oakdale in 1897.

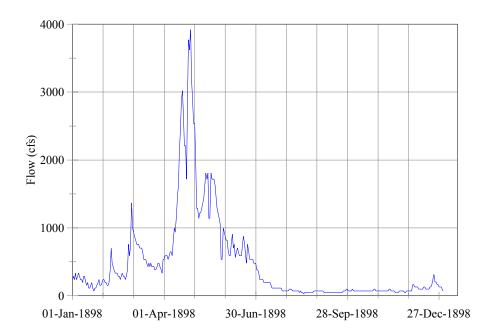


Figure 3. Estimated streamflow at U.S. Geological Survey gage 1302500 in the lower Stanislaus River near Oakdale in 1898.

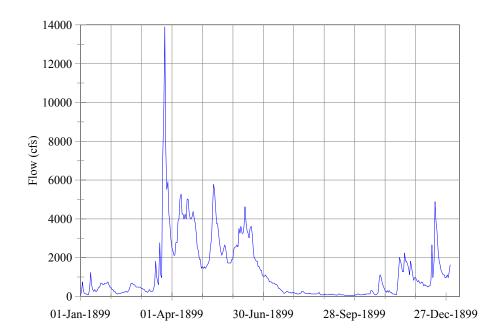


Figure 4. Estimated streamflow at U.S. Geological Survey gage 1302500 in the lower Stanislaus River near Oakdale in 1899.